

General
Faxon

CONTENTS

- Animal Light, *by Alan Goodman, M.Sc.*, 125
Animals on the Rocks, *by Douglas P. Wilson, D.Sc.*, 254
Appleton—Scientist and Administrator, *by I. B. N. Evans*, 139
Architecture of Protein Molecules, *by Dr. Gabrielle Rabel*, 194
Army Ants on the March, *by Derek Wragge Morley, M.A., F.L.S.*, 393
Atom Devalued?, *The, by E. M. Friedwald*, 362
Atomic Clock, *The*, 82

Bramah, Brunel and Brinell, *by M. Schofield*, 138
Britain's Productive Efficiency, *by Arthur Marsh, M.A.*, 347
British Association at Newcastle, 323, 359
British Television, *by G. Parr, M.I.E.E.*, 213

Chalk Houses, *by Reginald M. Lester, F.A.L.P.A.*, 230
Commonsense of Relativity, *The, by S. Lilley, Ph.D.*, 74
Cotton Research, *by Maurice Goldsmith, B.Sc. (Econ.)*, 12

Dead Hand on Discovery, *The, by C. D. Darlington, D.Sc., F.R.S.*, 7
Death of the Clothes Moth, *by R. W. Moncrieff, B.Sc., F.R.I.C., F.T.I.*, 318
District Heating, *by Edward Ward, B.Sc., Ph.D., A.R.I.C.*, 282
Einstein is Seventy, *by W. E. Dick, B.Sc., F.L.S.*, 41
First International Polar Expedition, *The, by Frank Illingworth*, 378
Flying Laboratory, 174
Forest Research—and Alice Holt, 111
Foundation of all Wealth, *by E. M. Friedwald*, 145

Gland Studies in Animals, *by Frank W. Lane*, 17
Greenland's Ice-stone Mountain, *by John Langdon-Davies*, 386
Groundnut Experiment, *The, by Leonard Cottrell*, 183

Hazards of Radiation, *The, by P. C. Koller, Ph.D., D.Sc.*, 241
Horseshoe Bats, *The, by J. H. D. Hooper, B.Sc., A.R.I.C.*, 107
How America Saved the Bison, *by Frank W. Lane*, 289
Inventor of the Valve, *The, by M. Schofield*, 341
Life in the Ocean Depths, *by N. B. Marshall, M.A.*, 23
Liverpool School of Tropical Medicine, *by Prof. B. G. Maegraith*, 224
Living in the Arctic, *by Douglas Liversidge*, 141

Mackerel, *The, by G. A. Steven, B.Sc., F.R.S.E.*, 79
Modern Methods of Gem Testing, *by Robert Webster*, 158

National Parks Bill, *The, by L. Russell Muirhead*, 197
Natural History of the Skuas, *by Richard Perry*, 389
New Era in Pest Control, *by D. Stewart MacLagan, D.Sc., F.R.S.E.*, 219
Nitrogen, *The Element of Life, by D. P. Hopkins, B.Sc., F.R.I.C.*, 262
Nobel Prize-winners, 28

Pioneer of Hydrogenation, *by E. M. Friedwald*, 209
Photographing Lightning, *by R. H. Golde, M.I.E.E., A.Amer.I.E.E.*, 155
Poet of This Scientific Age, 29
Potato in History, *The, by J. D. U. Ward*, 309
Powder Metallurgy, *by J. P. Saville, B.Sc.*, 295
Progress in Jets, 51
Putting Hybrid Vigour to Work, *by Gordon Haskell*, 84

Quarantine in a Changing World, *by Georges de Brancion*, 308

Rickets still Undefeated, *by Helen Claire Howes*, 292
Rise of Science, *The, by Bertrand Russell*, 59
Robot Telephone, *The, by Kurt Waltmann*, 129
Rockets Ahead, *by Chapman Pincher, B.Sc.*, 113
Romance of Wheat, *The, by A. J. Bateman, Ph.D.*, 278
Russian Contributions to Science, 252
Russian Stereoscopic Cinema, *The, by Denis Segaller, B.Sc.*, 355

Schmidt Camera, *The, by David S. Evans, M.A., Ph.D., F.Inst.P.*, 314
Science and Democracy, 40
Science and the Prepared Mind, *by G. Lapage, M.D., M.Sc., F.Z.S.*, 72
Science, Efficiency and Industry, *by Arthur Marsh, B.Sc.*, 381
Science in the Home, *by J. Greenwood-Wilson, M.D., F.R.C.P.*, 147
Science, Literature and Language, *by A. J. Lawrence*, 189
Science, Politics and Citizenship, *by Sir R. Watson-Watt, F.R.S.*, 250
Scientific Brooklands, A, 123
Scientific Evidence for Extra-Sensory Perception, *The, by S. G. Soal, M.A., D.Sc.*, 373

Ship Design and Model Experiments, by Douglas H. C. Birt, A.I.N.A., 181
 Sir Ben Lockspeiser, by W. E. Dick, B.Sc., F.L.S., 77
 Story of Alum, The, by S. Lilley, M.Sc., Ph.D., 350
 Sweeter Than Sugar, by Frederick Kurzer, Ph.D., A.R.I.C., 175
 Tasting and Smelling, by Geoffrey H. Bourne, D.Phil., D.Sc., 93

Utilising the Seaweed Harvest, by M. Schofield, M.A., B.Sc., F.R.I.C., 273

Visible Speech, by David Clayton, 187

Woodland Fungi of the Autumn, by B. Barnes, D.Sc., F.L.S., 342

World Power Situation, The, by Prof. F. E. Simon, F.R.S., 55, 88

BOOKSHELF INDEX

Barnett, Lincoln: "The Universe and Dr. Einstein", 264
 Bouma, P. J.: "Physical Aspects of Colour", 167
 Bradley, D.: "No Place to Hide", 234
 Bray, A., ed.: "Russian-English Scientific-Technical Dictionary", 268
 Brimble, L. J. F.: "The Floral Year", 400
 Butterfield, H.: "The Origins of Modern Science", 400
 Caldin, E. F.: "The Power and Limits of Science", 335
 Chalmers, J. A.: "Atmospheric Electricity", 167
 Compton, A. H. and Allison, S. K.: "X-Rays in Theory and Experiment", 302
 D'Amour, F. E. and Blood, F. R.: "Mammalian Physiology", 235
 Davis, J. S., ed.: "Carl Alsberg: Scientist at Large", 167
 Farrington, B.: "Greek Science: Its Meaning for Us", Vol. 2, 268
 Fitter, R. S. R.: "London's Birds", 264
 Flint, R. Foster: "Glacial Geology and the Pleistocene Epoch", 335
 Garlick, G. F. J.: "Luminescent Materials", 264
 Good, R.: "The Geography of the Flowering Plant", 66
 Gregory, H. F.: "The Helicopter—or Anything a Horse Can Do", 202
 Gresson, R. A. R.: "Essentials of General Cytology", 302
 Grinsell, L. V.: "Egyptian Pyramids", 168
 Haswell, J. E.: "Horology", 31
 Heinisch, H. K.: "Metal Rectifiers", 264
 Hosking, E. and Newberry, C.: "The Art of Bird Photography", 235

Hume-Rothery, W.: "Electrons, Atoms, Metals and Alloys", 99
 Hutchinson, J.: "British Flowering Plants", 134
 Huxley, A.: "Ape and Essence", 133
 Keith, Sir Arthur: "Human Evolution", 167
 Killeffer, D. H.: "The Genius of Industrial Research", 201
 Kingdon-Ward, F.: "Burma's Icy Mountains", 400
 Langdon-Davies, J.: "Russia Puts the Clock Back", 335
 Lenin Academy of Agricultural Sciences of U.S.S.R.: "The Situation in Biological Science", 133
 Light, L.: "Russian Science Reading", 264
 Lloyd, B., ed.: "Science in Films", 201
 Longfield, C.: "The Dragonflies of the British Isles", 302
 Lucas, A.: "Ancient Egyptian Materials and Industries", 168
 Lysenko, T. D.: "Soviet Biology", 64
 Macdonald, J. D.: "Birds of Britain", 365
 Margary, I. D.: "Roman Ways in the Weald", 336
 Martin, S. R. W.: "Synthetic Resin Chemistry for Students", 99
 Martin-Leake, H.: "Things Not Generally Said", 336
 Murphy, R. C.: "Oceanic Birds of South America", 31
 Nokes, M. C.: "Modern Glass Working and Laboratory Technique", 202
 Ogburn, W. F. and others: "Technology and International Relations", 400
 Organic Husbandry, a Symposium, 336
 Ostlere, Gordon: "Anaesthesia and the Patient", 264

Penrose, H. E.: "Principles and Practice of Radar", 202
 Pirenne, M. H.: "Vision and the Eye", 31
 Pitt, F.: "Birds in Britain", 66
 Platt, J. I. and Challinor, J.: "Simple Geological Structures", 235
 Porteous, C.: "Pioneers of Fertility", 167
 Prime, C. T. and Deacock, R. J.: "The Shorter British Flora", 134
 Ricketts, E. F. and Calvin, J.: "Between Pacific Tides", 202
 Ross, H. H.: "A Textbook of Entomology", 234
 Russell, Bertrand: "Human Knowledge: its Scope and Limits", 99
 Schwarzkopf, P.: "Powder Metallurgy", 31
 Sidgwick, J. B.: "The Heavens Above", 99
 Smith, Fox, Sawyer and Austin: "Applied Atomic Power", 336
 Taylor, F. Sherwood: "Science, Past and Present", 400
 Taylor, S. and Gadsden, P.: "Shadows in the Sun", 235
 Tolansky, S.: "Multiple-Beam Interferometry of Surfaces and Films", 31
 Tracey, M. V.: "Proteins and Life", 133
 Walker, R. C.: "Photo-electric Cells in Industry", 336
 Wender, L.: "Animal Encyclopaedia: Mammals", 167
 Williams, G. E.: "Technical Literature", 202
 Yates, F.: "Sampling Methods for Censuses and Surveys", 302
 Yonge, Prof. C. M.: "The Seashore", 268

Accidents in
 Adrenal gland
 Aerobee, 11
 Agar, 273
 Agricultural
 Aircraft, all
 —, testing
 Air-sickness
 Alcoholism
 Alginates, 2
 Alligator, g
 'Alnico', 29
 Alum, dye
 —, history
 —, manufa
 —, use in c
 Aluminium
 Alunite, 35
 Anaemia, 3
 Anemones,
 —, Opelet,
 Antabuse, 3
 Antarctic E
 Ant-eater, 1
 Ants, Army
 —, marchin
 —, reprodu
 Antibiotics,
 —, soil, 32
 Antricide, 3
 Appleton, S
 Archaeolog
 Arctic, the,
 —, feeding
 Arthritis, tr
 —, 299, 36
 Artificial In
 'Aslib', 365
 Astronomy,
 —, radio, 3
 Atabrine, s
 Athlete's fo
 Atomic bor
 Atomic ene
 —, French
 —, laborato
 —, policy,
 —, power f
 —, U.S. ex
 —, U.S.S.R.
 Aureomycin
 Auxins, 325
 Bacteria and
 Badger, 70
 Baird, J. L.
 Balance of
 Barnacles,
 Bats, 'echo
 —, hiberna
 —, Horsesh
 Beaver, Eur
 Beef-steak
 Bees, behav
 —, bumble
 —, commu
 —, research

SUBJECT INDEX

A

Accidents in chemical laboratories, 163
 Adrenal glands in animals, 17, *et seq.*
 Aerobee, 114
 Agar, 273
 Agricultural Research, 8, 324, 360
 Aircraft, all-jet, 306
 —, testing, 174
 Air-sickness, prevention of, 163
 Alcoholism, cure for, 39
 Alginates, 273
 Alligator, glands of, 22
 'Alnico', 298
 Alum, dyeing with, 350
 —, history of, 350
 —, manufacture from shales, 352
 —, use in crystallography, 354
 Aluminium, 386
 Alunite, 351
 Anaemia, 330
 Anemones, Beadlet, 258
 —, Opelet, 258
 Antabuse, 39
 Antarctic Expedition, 379
 Ant-eater, 103
 Ants, Army, 393
 —, marching phase of, 394
 —, reproduction of, 394
 Antibiotics, 1, 169, 384, 385
 —, soil, 325
 Antricide, 37, 238
 Appleton, Sir Edward, 139
 Archaeology and education, 360
 Arctic, the, clothing in the, 141
 —, feeding in the, 141
 Arthritis, treatment with compound E, 299, 369
 Artificial Insemination, 325
 'Aslib', 365
 Astronomy, meteor, 330
 —, radio, 329
 Atabrine, *see* Mepacrine
 Athlete's foot, 34
 Atomic bomb, 250, 337, 362
 Atomic energy, control, 92, 363
 —, French pile, 62
 —, laboratory at Harwell, 267
 —, policy, 299
 —, power from, 88
 —, U.S. experimental power plant, 39
 —, U.S.S.R. underground project, 60
 Aureomycin, 169, 384, 385
 Auxins, 325

B

Bacteria and poisons, 303, 372
 Badger, 70
 Baird, J. L., 214
 Balance of Nature, and insecticides, 221
 Barnacles, acorn, 258
 Bats, 'echo-location' of, 110
 —, hibernation of, 107
 —, Horseshoe, 107
 Beaver, European, 103
 Beef-steak fungus, 344
 Bees, behaviour of, 305, 368
 —, bumble—nests, 265
 —, communication of, 272
 —, research on, 265

Bergius, Dr. F. K. R., obituary, 166
 BHC, 2, 219, 238
 Biology, school, 135, 266
 Birch polypore, 344
 Bison, 289
 Bis-thioether linkage, 322
 Black, Joseph, 392
 Blind, enabling to read, 171, 239
Boletus Elegans, 343
 Bonxie, *see* Skua, 389
 Brabazon, the, 334
 Brain, and energy, 18
 —, and tasting and smelling, 93
 —, in animals, 18
 Bramah, Joseph, 138
 Brinell, Johan August, 138
 Brunel, Marc Isambard, 138
 Buffalo, *see* Bison

C

Calorimeter building, 150, 151
 Camera, Boys, 155
 —, Schmidt, 314
 —, underwater, 332
 Camphor, 319
 Cancer, chemical tests for, 164
 —, treatment by guanazole, 372
 —, treatment by patulin, 1
 Carbon dioxide, discovery of, 392
 Carbon 14, 5
 Carbonyl-E iron, 304
 Carbonyl process, 297
 Cars, testing, 123
 Cat, wild, 103
 Catalysis, 209, *et seq.*
 Cathode ray tube, 214, 370
 Cedar, Western red, incense, 371
 Cell, effects of radiation on, 243
 Chalk houses, 230
Challenger, deep-sea expedition, 23, 27
 Chemotherapy, 228
 Chestnut Blight, 200
 Chloromycetin, 34, 169
 Chloropicrin, 223
 Chromosomes, radiation injury of, 245
 Chuño, 309
 Clairvoyance, 375
 Climate, 379
 Clock, atomic, 82
 Clouds, detection of, 305
 Clutch, electrostatic, 265
 —, magnetic, 304
 Coal, supplies of, 88, 232
 Colchicine, 84
 Coma, 315
 'Comet', the, 306
 Communications, S.R.D.E., 60
 Compound E, and rheumatism, 199
 —, and arthritis, 299, 369
 Compound 2, 2
 Cortisone, 369
 Cotton, research on, 12
 Crabs, Velvet fiddler, 256
 —, young edible, 256
 Craters, lunar, 271
 Cricket, Temperature or Snowy Tree, Black Field, 304
 Crocodile, glands of, 21

Cryolite, 387
 Cybernetics, 171
 Cypress, Lawson's, 371
 Cytochrome, 338

D

Darwin, Charles, 170
 Davy, Humphry, 106, 386
 DCPA—2,4-D, hormone weed-killer, 33, 165
 DDT, 2, 165, 199, 219, 238, 321, 332
 Death Cap, 344
 Deep-sea life, 23
 Degree-days, 287
 Diamonds, 161
 Dichroscope, 162
 Dickens, Charles, 189
 Disease, prevention of, 237
 —in agriculture, 324
 Dry Rot, 63
 Dulcin, 176
 Dyeing, use of alum, 350

E

Echo-sounder, 330
 Ecology, 327, 361
 Einstein, 41, 74
 Elephant, glands of, 21
 Eliot, T. S., 29
 Emitron camera, 215
 Energy from the sun, 88
 —from tidal power, 88
 —, organs controlling, 17
 Erosion, soil, 324
 Error, in flying, 137
 Eskimo, dress, 143
 —, food, 144
 Ethylene, stimulation of plant growth, 33
 Eulans, 321
 Eupatheoscope, 147
 Explosions, underwater, 68

F

Faraday, Michael, 106
 Fertilisers, nitrogenous, 262
 Filming, underwater, 332
 Fir, Douglas, 371
 Firemen's helmets, 98
 Fish, deep-sea, 23
 —, locating, 330
 —, locomotion, 359
 —, luminescence in, 126
 —, movement northwards, 380
 Fizeau, H., 104
 Flamingo, glands of, 19
 Fleming, John Ambrose, 341
 Flies, house, control of, 332
 Florigen, 68
 Fluorides, mothproofing with, 319
 Fluorine, 136, 329
 Fly agaric, 343
 Folic acid, 330
 Food, science and the Army's, 200
 —, world shortage of, 237, 323, 365

Forestry, Alice Holt Lodge, 111
 —, fires, 340
 Foucault, L., 104
 Froude, William, 181
 Fruit drop, prevention of, 34
 Fuel, utilisation of, 57
 Fungi, 342

G

Gammexane, 2, 219, 321
 Gas turbines, aero-engines, 54
 —, locomotive, 399
 Gasification, underground, 97
 Gem testing, 158
 Generator, ultrasonic, 132
 Genetics, 84
 Glands, in animals, 17
 Golden stars tunicate, 259
 Groundnut scheme, 183
 Growth regulators, *see also* hormones, 33
 —, inhibitors, 332
 Guano, 396
 Guanozolo, 372

H

Haemoglobin, 195
 Harwell Radiochemical Laboratory, 267
 Hawkweeds, 63
 Haystack fires, 267
 Heart, in animals, 18
 Heat, as source of energy, 56
 —, pump, 56, 91, 285
 —, specific, 392
 Heating, central, 149
 —, district, 282
 —, domestic and industrial, 56, 92, 124
 Helicopter and pest control, 219
 Hemlock, western, 371
 HETP, 219
 Honey agaric, 344
 Honeycomb-worm, 261
 Hormones, plant, 33, 68
 Horse, wild, 103
 Hot air engine, 3
 Housing, science and, 147
 —, chalk, 230
 Huxley, Aldous, 191
 Hybrid vigour, 84
 Hydrodynamics, 359
 Hydrogenation, 209, *et seq.*
 Hydrometer, wet and dry bulb, 147
 Hygrometer, use of in textile research, 15
 —, whirling, 148

I

Industry, output of British, 145, 347, 381
 —, engineering in, 359
 Insecticides, how they act, 1
 —, development of, 219
 Insects, detection by radar, 232
 —, luminescent, 126
 —, migration of, 330
 Ionisation, 241
 —, particles, 242
 Ivanov, S. P., 357

J

Jet aircraft, 51, 306
 Job analysis, in domestic work, 152
 Joule, J. P., heat apparatus, 56, 266

K

Katathermometer, 147
 Katydid, 304
 Kelvin, Lord, heat pump apparatus, 56
 Koala, 103

L

Laminaria, 274
 Land planning, 326, 361
 Lanoc CN, 321
Latimeria chalumnae, 23
 Lemur, 103
 Light, animal, 125
 —, fluorescent, 153
 —, from mercury vapour, 208
 —, natural and artificial, 152
 —, velocity of, 103
 Lightning, photographing, 155
 Lion, glands of, 22
 Liverpool School of Tropical Medicine, 224
 Lockspeiser, Sir Ben, 77
 Locomotive, gas-turbine, 399
 Locusts, 266
 Literature, of science, 189
 Luciferin, 125
 Luminescence in animals, 125
 —, in deep-sea life, 25
 —, in gas, 208
 —, structure of organs of, 126
 Lysenko, 60, 64, 67, 165

M

Mackerel, migration of, 79
 —, spawning grounds, 81
 Magnetic fluid, 304
 Maize, 84
 —, hybrid, 164
 Malaria, 237
 —, treatment by DDT, 199, 225
 Maleic hydrazide, 332
 Martius yellow, 319
 Memory, 172
 Mepacrine, 226
 Metallurgy, powder, 295
 Meteorology by radar, 305
 —, in Antarctic, 380
 Methoxone, 33
 Meteorites, 131
 Metric system, 239
 Metrology, 232
 Michurin, 60, 64, 98
 Micro-organisms and poisons, 303
 Mind, scientifically prepared, 72, 251
 Mink, European, 103
 MIRA, 123
 Mirror reflections, 314
 Mitin FF, 2, 231
 Models of propellers, 182
 —, of ships, 181
 Molecules, structure of, 194
 Mosaicism, 247
 Mosquito (Anopheles), 305
 Moth, clothes, 318
 —, proofing, 319
 Mouse, glands of, 21
 Mulberry harbour, 182
 Mutation, artificial, 361
 —, of genes, 248

N

Naphthalene, 319
 Naphthalene-acetic acid, 33
 National Parks Bill, 197

Neomycin, 169
 Neptune, rocket, 114
 Newton, 74
 Nickel and catalytic hydrogenation, 211
 Night Sky, 300, 366, 398
 Nitrogen, 262
 —, and grass, 164
 —, discovery of, 339
 —, fixation of atmospheric, 210, 264
 Nobel Prize-winners 1949, 397

O

Oil, supplies of, 88
 Olfactory organs, 95
 Organisms, living, 303
 —, effects of acceleration and cosmic rays on, 114
 Osler, Sir William, 205

P

Palomar telescope, 199, 314, 327
 Paludrine, 37, 226
para-aminobenzoic acid, 372
 Parasites, control of, 223
 —, injury caused by, 228, 238
 Parsnip, wild, blisters from, 233
 Patulin, 1
 Pavlov, Ivan Petrovitch, 269
 Peat, 233
 Pemman, 144
 Penicillin, 169
 Pentachlorophenol, 321
 Periwinkles, common, smooth, 255
 Pest control, 219
 Petroleum, solvents from, 265
 Phenothiazine, 223
 Phosphorescence, 125
 Phosphorus, 136
 Photography, air, 232
 —, of lightning, 155
 —, scientific, 61
 Physique, the Briton's, 203
 Piltown man, 329
 Pine, Monterey, 371
 Pine Martin, 103
 Pituitary glands in animals, 19
 Planetarium, 97
 Plant breeding, 84
 Plutonium, 130
 Poisons and bacteria, 303, 372
 Polar research, 379
 Polecat, 103
 Polyethylene polysulphide, 221
 Popov, A. S., 132, 253
 Population and food supplies, 323, 365
 Postage stamps, 4
 Potash, 396
 Potato, diseases of, 313
 —, history of, 309
 —, pests, 313
 —, pots, 309
 —, and poverty, 312
 Printing, photographic process, 173
 Productivity, 145, 347, 381
 Propoxy-nitranaline, 178
 Protein, 262
 —, structure of molecules of, 194
 Pyrethrum, 2
p-Dichlorobenzene, 319

Q

Quagga, 103
 Quarantine, 308
 Quinine, 226

Radar, m
 Radiation
 —, mutat
 —, patho
 —, protec
 Radio, as
 —, resear
 Radioacti
 —, and ch
 —, isotop
 Radiolym
 Rain, arti
 Raster sys
 Rat, beha
 —, repelle
 Rayon, re
 Redwoods
 Reflexes,
 Refractom
 Relativity
 Rhenium,
 Rheumat
 Rhine, Dr
 Rhodopsin
 Rickets, 2
 Rickettsia
 Roads, 13
 Rockets, 1
 —, and ar
 —, and hi
 —, and wi
 —, in 174
 —, photog
 —, solid fu
 Rouxcolou
 Royal Inst
 Rumford,
 Rutherford
 Rye, 278

Sabatier, I
 Sable, Rus
 Saccharin,
 Salmon, sp
 Sarmentoc
 Scanning,
 —, device
 Schmidt op
 Scientific A
 Scientific n
 Scientific r
 Scrub-typh
 Seashore, a
 Seaweed, 2
 Seed, prod
 Selenium a
 Shanny, 25

R

- Radar, meteorology by, 305
- Radiation, dangers from 241, *et seq.*
 - , mutations from, 361
 - , pathological effect of, 247
 - , protection from, 248
- Radio, astronomy, 329
 - , research, 201
- Radioactivity, 346
 - , and chronology, 5
 - , isotopes, 163
- Radiolympia 1949, 366
- Rain, artificial, 366
- Raster system, 355
- Rat, behaviour, 377
 - , repellent, 179
- Rayon, research on, 13
- Redwoods, 371
- Reflexes, conditioned, 269
- Refractometer, 159
- Relativity, 41, 74
- Rhenium, 240
- Rheumatism and Compound E, 199
- Rhine, Dr. J. B., 374
- Rhodopsin in deep-sea fish, 27
- Rickets, 292
- Rickettsias, 384, 385
- Roads, 130, 207
- Rockets, 113
 - , and artillery bombardment, 121
 - , and high-altitude temperatures, 114
 - , and wind velocities, 114
 - , in 1749, 144
 - , photographs from, 114, 121
 - , solid fuel, 120
- Rouxcolor, 334
- Royal Institution, 105
- Rumford, Count, 105
- Rutherford, Daniel, 339
- Rye, 278

S

- Sabatier, Dr. Paul, 209, *et seq.*
- Sable, Russian, 103
- Saccharin, 176
- Salmon, spawning habits, 360
- Sarmentocymarin, 369
- Scanning, in television, 215
 - , device for blind, 239
- Schmidt optical principle, 314
- Scientific Advisory Committee, 7
- Scientific method, 135
- Scientific research in industry, 381
- Scrub-typhus, treatment of, 34, 169
- Seashore, animals of the, 254
- Seaweed, 273
- Seed, production of, 86
- Selenium and living organisms, 303
- Shanny, 259

Shells, barnacles, 258

- , Grey Top, 254
- , Large Top, 254
- , Painted Top, 254
- , periwinkles, 254
- , whelks, 257
- Ship, design of, 181
- Silk, research on, 13, 233
- Sintering, 295
- Skuas, Arctic and Great, 389
 - , breeding behaviour, 389
 - , behaviour of nestlings, 391
- Smelling, 93, 175
 - , and bloodhounds, 95
- Solar noise, 329
- Soldering iron, ultrasonic, 398
- Sound spectrograph, 187
- Speech, visible, 187
- Spelt, 278
- Sponge, breadcrumb, 259
- Starfish, spiny, 260
 - , common, 260
- Stereoscopy, 355
- Stinkhorn, 345
- Stork, glands of, 21
- Stradivarius, violin, 204
- Streptomycin, 169
- Sugar, 175
- Superphosphate industry, 136
- Supersonic flight, 53, 117, 164
- Sweetening agents, 175
- Swift, Jonathan, 189

T

- Tasmanian Devil, 101
- Tasmanian wolf, 101
- Taste, 93
 - , buds, 93, 175
 - , synthetic, 94
- Telepathy, 328, 372
- Telephone, robot, 129, 340
- Telescope, Newton's, 314, 327
 - , Palomar, 199, 314, 327
- Television, 213
 - , basic principles, 213
 - , reception, 217
 - , transmission, 216
 - , projection, 369
- Temperature of the body in Arctic, 141
- Textiles, testing fibres of, 15
- Thames Estuary, 234
- Thermal-electric stations, 285
- Thermometer, globe, 147
- Thorium, 362
- Thyroid, glands in animals, 17, *et seq.*
- Toadstools, *see* Fungi
- Tongue, 93
- Trace elements, tracing, 163
- Traffic, problems of, 207

- Tropical medicine, 224
- Trypanosomiasis, 37, 226, 238
- Tsetse fly, 37
- Tube-worm, keeled, 261
- Tuberculosis, 238, 265

U

- Unesco, book-token scheme, 6, 163
 - , conference, 399
 - , programme for 1949, 146
 - , young scientists, 301
- Uranium, 166, 362

V

- V2, 113
- Valve, thermionic, 341
- Ventilation in domestic heating, 148, 149
 - , in ships in Arctic, 144
- Ventile cloth, 15, 143
- Vernalisation of cereals, 67
- Violin, 203
- Vitamin B₁₂, 330
 - , D, 292
- Vocabulary of science, 191

W

- Wac-Corporal, 114
- Walter motors, propulsion units, 120
- Wasserfall, guided missile, 116
- Waves, behaviour of ocean, 338
- Weather forecasts, 199
- Weed control, 324, 365
- Wellingtonia, 371
- Wells, H. G., 190
- Wheat, 278
- Whelks, dog, 257
- Wind tunnel and rocket research, 118
- World Health Organisation, 6, 237, 308

X

- X-ray analysis, 194
 - , radiation from, 241
 - , treatment of cancer by, 247

Y

- Yellow fever, 227
- Yorke, Warrington, 226

Z

- Zoology, 327
- 1068, C₁₀H₈Cl₈, 219
- 2,4,5-T, 365